*DOI: https://doi.org/10.36059/978-966-397-440-8-59*

# NEOM: THE AMBITIOUS TRANSFORMATION OF SAUDI ARABIA INTO A GLOBAL LABORATORY FOR INNOVATION AND SUSTAINABILITY

**Țuțuraș Alexandru**
*Master Student,*
*University of Oradea, Romania*
**Constantin – Vasile Țoca**
*Doctor of Geography, Associate Professor PhD,*
*Faculty of History International Relations Political Sciences Communication Sciences,*
*University of Oradea, Romania*

The NEOM project represents an innovative paradigm for the economic and social evolution of Saudi Arabia, based on fundamental ambitions and strategic directions. The initiative was conceived to address the country's evident vulnerabilities to fluctuations in oil prices, [1] by focusing on economic diversification and technological development. Integrated within the Saudi government's Vision 2030, [2] NEOM aims to become a global hub of innovation, attracting international talent and investment in sectors such as technology, tourism, and renewable energies. The project not only seeks to create jobs and reduce unemployment but also to transform the region into a premier tourist destination, capitalizing on natural resources and recreational facilities [3]. Additionally, the initiative highlights the desire to strengthen regional collaborations and build a model city in terms of sustainability and advanced technologies.

Coordinated under the guidance of Crown Prince Mohammad bin Salman and supported by the Saudi Royal Family, NEOM benefits from significant financial resources and logistical support, being promoted globally through diplomacy and international relations. Through private sector involvement and a focus on innovation, NEOM aims to become a center of excellence in technology and contribute to the ambitious goals of Vision 2030. This comprehensive initiative includes the development of innovation spaces, significant investments in renewable energies, the adoption of sustainable urban design, and the creation of a global laboratory for innovative solutions to contemporary challenges [4].

Overall, NEOM represents not only a project of economic and urban development but also a firm commitment to a sustainable future, serving as an innovation hub with positive impacts at both local and global levels. The relevance of the theme is evident in its intention to transform the region into a global center for innovation and technology, generating employment

opportunities, attracting foreign investment, and consolidating regional collaborations.

The intention to become a global hub for innovation and technology, attracting international companies and talent in fields such as artificial intelligence, robotics, green technologies, and others, underscores NEOM's ambition. The project is planned to generate numerous job opportunities, both in the construction phase and in the long term, contributing to reducing unemployment among the active population. It aims to create a favorable environment for foreign investment through tax incentives, public-private partnerships, and world-class infrastructure, transforming the region into a premier tourist destination by capitalizing on natural landscapes, beaches, and recreational facilities [5].

NEOM is designed to strengthen regional collaborations, including with neighboring countries such as Egypt and Jordan, to create an economic and technological hub in the region. The intention to build a city that sets an example in terms of sustainability and environmental respect, with massive investments in renewable energies and eco-friendly practices, the development of a smart and connected city integrating emerging technologies to improve quality of life and urban efficiency.

The NEOM project encourages active involvement of the private sector through public-private partnerships to bring expertise, capital, and innovation. These causes reflect an ambitious vision for Saudi Arabia's future and illustrate the intention to transform the region into a global economic and technological center [6].

The adoption of innovative urban design integrating principles of sustainability, energy efficiency, and aesthetics, promoting a balanced and pleasant urban environment [7, p. 277–297]. The implementation of strategies for efficient land use to avoid urban overcrowding and to preserve green and natural spaces. Community and stakeholder involvement in the urban planning process to ensure that development is in line with local needs and values. The construction of smart and sustainable infrastructure, including efficient transportation systems, water and waste management, to minimize environmental impact. The development of wind and solar parks to meet the region's energy needs, contributing to diversifying the energy source and reducing the carbon footprint. The implementation of advanced technologies for energy efficiency in buildings, infrastructure, and industrial processes, aiming to reduce energy consumption. Launching awareness and education programs for the community to promote responsible energy use and encourage sustainable practices. Implementing technologies and practices for sustainable water resource management and protecting water quality in the region. Creating protected areas and adopting measures to conserve local biodiversity and natural habitats. Promoting sustainable agricultural practices and urban forestry to ensure local food supply and support biodiversity [8]. Implementing efficient

recycling and reuse programs to reduce waste and promote the circular economy. Strict regulation and control of industrial waste management to prevent pollution and protect the surrounding environment. Adopting strict green building standards, focusing on sustainable materials and energy efficiency of buildings. Promoting research and development in innovative and ecological construction materials. Establishing close partnerships with environmental organizations to ensure compliance with sustainability standards and benefit from expertise in environmental conservation. Obtaining globally recognized sustainability certifications to demonstrate commitment to sustainable practices.

Strategies for managing urban growth and preserving the environment in NEOM reflect a firm commitment to sustainable urban development. By adopting innovative practices and advanced technologies, NEOM aims to become a model for the cities of the future, where economic growth and community prosperity go hand in hand with preserving natural resources and the environment.

Within the NEOM project, capitalizing on the previous experiences of other similar projects globally plays a crucial role in guiding towards success and innovation. Various projects such as Masdar City in the United Arab Emirates, Songdo in South Korea, King Abdullah Economic City in Saudi Arabia, Singapore Smart Nation, Tianjin Eco-City in China, Smart Dubai in the United Arab Emirates, PlanIT Valley in Portugal, Quayside in Toronto, King Abdullah Financial District in Saudi Arabia, and Forest City in Malaysia provide a rich panorama of practices and results in the field of sustainable urban and economic development. Masdar City [9] located in Abu Dhabi, exemplifies the efficient use of renewable energy and smart technologies, offering valuable ideas for advanced and sustainable infrastructure for NEOM. Songdo in South Korea [10] highlights the benefits of smart urban planning and attracting international investments, aspects that can serve as inspiration for NEOM. King Abdullah Economic City [11] located in proximity to NEOM, is an example of economic diversification, and its strategies for attracting investments and economic development can be applied within our project. Additionally, experiences from projects such as Smart Dubai, PlanIT Valley, Quayside, and Forest City offer perspectives on integrating technology into urban development, addressing aspects such as digital governance, IoT technologies, and sustainability. These examples can guide NEOM in adopting innovative and efficient practices in its construction and implementation process. By capitalizing on these previous experiences, NEOM has the opportunity to avoid potential obstacles and benefit from the knowledge accumulated in other similar global projects. Thus, the lessons learned from successful projects, as well as from failures, can significantly contribute to shaping a prosperous urban and economic future for NEOM. Integrating this knowledge into the

development process will strengthen the project's position among innovative and sustainable initiatives globally.

The NEOM project represents not only an opportunity for economic and urban development but also a global laboratory for innovative solutions to contemporary challenges. By responsibly addressing social, economic, and environmental aspects, NEOM can become an example of sustainable urban and economic development with positive impacts at both local and global levels. Achieving these objectives requires continuous commitment, close collaboration, and adaptability to changes, thus ensuring a promising future for NEOM [12].

## References:


1. Available at: https://www.opec.org/opec_web/en/data_graphs/40.htm
2. Available at: https://www.vision2030.gov.sa/en/
3. Available at: https://www.researchgate.net/publication/377695419The_Smart_City_NEOMAmodernutopiabetweentraditionandsustainableinnovation
4. Available at: https://www.vision2030.gov.sa/en/projects/
5. Available at: https://www.vision2030.gov.sa/en/vision-2030/overview/
6. Available at: https://www.vision2030.gov.sa/en/media-center/media/saudi-budget-2024-forum/
7. Available at: https://www.researchgate.net/publication/377695419TheSmartCity NEOMAmodernutopia_between_tradition_and_sustainable_innovation
8. Available at: https://www.neom.com/en-us/
9. Available at: https://masdarcity.ae
10. Available at: http://songdo.com
11. Available at: https://www.kaec.net
12. Available at: https://www.neom.com/en-us/